

2009 edition (“IMSBC Code”), incorporation by reference, excluding supplemental materials, approved for §§148.3; 148.5(a); 148.15(d); 148.55(b); 148.205(b); 148.220(b) and (c); 148.240(h); 148.450(a), (d), and (g).

(2) [Reserved]

(c) United Nations Publications, 2 United Nations Plaza, Room DC2-853, Dept. C089, New York, NY 10017, (800) 253-9646, <http://unp.un.org>.

(1) Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, Fifth revised edition (2009) (“UN Manual of Tests and Criteria”), incorporation by reference approved for §§148.205(b); 148.220(b) and (c).

(2) [Reserved]

§ 148.9 Right of appeal.

Any person directly affected by enforcement of this part by or on behalf of the Coast Guard may appeal the decision or action under Subpart 1.03 of this chapter.

§ 148.10 Permitted materials.

(a) A material listed in Table 148.10 of this section may be transported as a bulk solid cargo on a vessel if it is carried according to this part. A material that is not listed in Table 148.10 of this section, but which is hazardous or a Potentially Dangerous Material (PDM), requires a Special Permit under §148.15 of this part to be transported on the navigable waters of the United States.

(b) For each listed material, Table 148.10 identifies the hazard class and gives the BCSN or directs the user to the preferred BCSN. In addition, the table lists specific hazardous or potentially dangerous characteristics associated with each material and specifies or references detailed special requirements in this part pertaining to the stowage or transport of specific bulk solid materials. The column descriptions for Table 148.10 are defined as follows:

(1) *Column 1: Bulk Solid Material Descriptions and Bulk Cargo Shipping Names (BCSN).* Column 1 lists the bulk solid material descriptions and the BCSNs of materials designated as hazardous or PDM. BCSNs are limited to those shown in Roman type. Trade names and additional descriptive text are shown in italics.

(2) *Column 2: I.D. Number.* Column 2 lists the identification number assigned to each BCSN associated with a hazardous material. Those preceded by the letters “UN” are associated with BCSNs considered appropriate for international voyages as well as domestic voyages. Those preceded by the letters “NA” are associated with BCSNs not recognized for international voyages, except to and from Canada.

(3) *Column 3: Hazard Class or Division.* Column 3 designates the hazard class or division, or PDM, as appropriate, corresponding to each BCSN.

(4) *Column 4: References.* Column 4 refers the user to the preferred BCSN corresponding to bulk solid material descriptions listed in Column 1.

(5) *Column 5: Hazardous or Potentially Dangerous Characteristics.* Column 5 specifies codes for hazardous or potentially dangerous characteristics applicable to specific hazardous materials or PDMs. Refer to §148.11 of this part for the meaning of each code.

(6) *Column 6: Other Characteristics.* Column 6 contains other pertinent characteristics applicable to specific bulk solid materials listed in Column 1.

(7) *Column 7: Special Requirements.* Column 7 specifies the applicable sections of Part 148 of this chapter that contain detailed special requirements pertaining to stowage and/or transportation of specific bulk solid materials in this part. This column is completed in a manner which indicates that “§148.” precedes the designated numerical entry.

(c) The following requirements apply to combinations of bulk solids carried at the same time and in the same compartment or hold:

Combinations of bulk solid materials	Requirements
(1) Material listed in Table 148.10 carried with any other non-hazardous bulk solid material.	Requirements specified in Table 148.10 for the listed material.
(2) Material carried under Special Permit with any non-hazardous bulk solid material.	Requirements specified in the Special Permit.

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<i>Combinations of bulk solid materials</i>	<i>Requirements</i>
(3) Two or more materials listed in Table 148.10	Must apply for a Special Permit.

(d) An owner, agent, master, operator, or person in charge of a vessel or barge carrying materials listed in Table 148.10 of this section must follow the requirements contained in 46 CFR part 4 for providing notice and reporting of marine casualties and retaining voyage records.

TABLE 148.10—BULK SOLID HAZARDOUS MATERIALS TABLE

Bulk solid material descriptions and bulk cargo shipping names	I.D. No.	Hazard class or division	References	Hazardous or potentially dangerous characteristics (see § 148.11)	Other characteristics	Special requirements (§ 148.* * *)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Aluminum Ferrosilicon Powder.	UN1395	4.3, 6.1	.....	2, 3	Fine powder or briquettes.	135, 255, 405(b), 407, 415(a) & (e), 420(b), 445, 140
Aluminum Nitrate	UN1438	5.1	.....	4	Colorless or white crystals.	135, 255, 405(b), 407, 415(a) & (e), 420(b), 445, 140
Aluminum Silicon Powder, Uncoated.	UN1398	4.3	.....	2, 3	.....	135, 255, 405(b), 407, 415(a) & (e), 420(b), 445, 140
Aluminum Smelting By-products or Aluminum Re-melting Byproducts.	UN3170	4.3	.....	1, 2, 3	Includes aluminum dross, residues, spent cathodes, spent potliner, and skimmings.	135, 405(b), 420(b), 445
Ammonium Nitrate	UN1942	5.1	.....	5, 27	.....	140, 205, 405(a), 407, 410
Ammonium Nitrate Based Fertilizer.	UN2067	5.1	.....	5, 27	.....	140, 205, 405(a), 407, 410
Ammonium Nitrate Based Fertilizer.	UN2071	9	.....	6	Nitrogen, Phosphate, or Potash.	140, 220, 405(a), 407
Barium Nitrate	UN1466	5.1, 6.1	.....	4, 7	.....	140
Brown Coal Briquettes ...	.....	PDM	.....	11, 12, 14, 25	.....	155, 240, 405(b), 407, 415(b), 420(a), 445
Calcium fluoride .....	.....	.....	See Fluoropar.	.....	.	.
Calcium Nitrate	UN1454	5.1	.....	4	White crystals or powder.	140, 227
Calcium Oxide .....	.....	.....	See Lime, Unslaked.	.....	.	.
Castor Beans	UN2969	9	.....	10	Whole beans	150, 235
Charcoal .....	.....	PDM	.....	1, 11, 12	Screenings, briquettes.	155
Chili Saltpeter .....	.....	.....	See Sodium Nitrate.	.....	.	.
Chilean Natural Nitrate ...	.....	.....	See Sodium Nitrate.	.....	.	.
Coal .....	.....	PDM	.....	11, 12, 13, 14, 25	.....	155, 240, 405(b), 407, 415(b), 420(a) & (c), 445, 450
Copra	UN1363	4.2	.....	11, 12	Dry	130, 242
Direct reduced iron (A) with not more than 5% fines.	.....	PDM	.....	1, 2, 12	Hot-molded briquettes.	155, 250, 420(b)

TABLE 148.10—BULK SOLID HAZARDOUS MATERIALS TABLE—Continued

Bulk solid material descriptions and bulk cargo shipping names	I.D. No.	Hazard class or division	References	Hazardous or potentially dangerous characteristics (see § 148.11)	Other characteristics	Special requirements (§ 148.* * *)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Direct reduced iron (B) with not more than 5% fines.	.....	PDM	.....	1, 2, 12	Lumps, pellets, and cold-molded briquettes.	155, 245, 405(b), 407, 420(b), 445
Environmentally Hazardous Substances, Solid, n.o.s..	UN3077	9	Hazardous substances listed in 40 CFR part 302.	15	.....	150, 270
Ferrophosphorous .....	.....	PDM	.....	2, 3	Including briquettes	155, 415(e), 445
Ferrosilicon with 30–90% silicon.	UN1408	4.3, 6.1	.....	2, 3	.....	135, 255, 405(b), 407, 415(a) & (e), 420(b), 445
Ferrosilicon with 25%–30% silicon or 90% or more silicon.	.....	PDM	.....	.....	.....	155, 255, 405(b), 407, 415 (a) & (e), 420(b), 445
Ferrous Sulfate .....	.....	.....	See Environmentally Hazardous Substances, Solid, n.o.s.	.....	.	.....
Ferrous Metal Borings, Shavings, Turnings, or Cuttings.	UN2793	4.2	.....	11, 12	.....	130, 260
Fish Meal Stabilized or Fish Scrap, Stabilized.	UN2216	9	.....	11, 12	Ground and pelletized (mixture), anti-oxidant treated.	150, 265
Fluorospar .....	.....	PDM	.....	8, 24	.....	155, 440(a), 450
Garbage Tankage .....	.....	.....	See Tankage.	.....	.	.....
Iron Oxide, Spent or Iron Sponge, Spent.	UN1376	4.2	.....	3, 11, 12, 14	.....	130, 275, 415(c), (d) & (f), 445
Iron Swarf .....	.....	.....	See Ferrous Metal Borings, Shavings, Turnings, or Cuttings.	.....	.	.....
Lead Nitrate	UN1469	5.1, 6.1	.....	4, 7, 22, 26	.....	140, 270
Lignite .....	.....	.....	See Brown Coal Briquettes.	.....	.	.....
Lime, Unslaked .....	.....	PDM	.....	1	.....	155, 230
Linted Cotton Seed containing not more than 9% moisture and not more than 20.5% oil.	.....	PDM	.....	11, 12	.....	155
Magnesia, Unslaked .....	.....	PDM	.....	1	Lightburned magnesia, calcined magnesite.	155, 280
Magnesium Nitrate	UN1474	5.1	.....	4	.....	140

TABLE 148.10—BULK SOLID HAZARDOUS MATERIALS TABLE—Continued

Bulk solid material descriptions and bulk cargo shipping names	I.D. No.	Hazard class or division	References	Hazardous or potentially dangerous characteristics (see § 148.11)	Other characteristics	Special requirements (§ 148.* * *)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Metal Sulfide Concentrates.	.....	PDM	.....	8, 11, 12, 22, 24	Solid, finely divided sulfide concentrates of copper, iron, lead, nickel, zinc, or other metalliferous ores.	155, 285, 450
Peat Moss with moisture content of more than 65% by weight.	.....	PDM	.....	8, 12, 13, 14, 24	Fine to coarse fibrous structure.	155, 290, 450
Pencil Pitch .....	.....	.....	See Pitch Prill.	.....	.	.....
Petroleum Coke calcined or uncalcined at > 55 °C (131 °F).	.....	PDM	.....	11	.....	155, 295
Pitch Prill .....	.....	PDM	.....	14, 16	.....	155
Potassium Nitrate	UN1486	5.1	.....	4	.....	140
Prilled Coal Tar .....	.....	.....	See Pitch Prill.	.....	.	.....
Pyrites, Calcined .....	.....	PDM	.....	8, 9, 24	Fly ash	155, 225, 450
Pyritic ash .....	.....	.....	See Pyrites, Calcined.	.....	.	.....
Quicklime .....	.....	.....	See Lime, Unslaked.	.....	.	.....
Radioactive Material	UN2912	7	.....	17	Low specific activity	145, 300
Radioactive Material	UN2913	7	.....	17	Surface contaminated objects.	145, 300
Rough Ammonia Tankage.	.....	.....	See Tankage.	.....	.	.....
Saltpeter .....	.....	.....	See Potassium Nitrate.	.....	.	.....
Sawdust .....	.....	PDM	.....	12, 18	.....	155, 405(a), 407
Seed Cake	UN1386	4.2	.....	12, 19	Mechanically expelled or solvent extractions.	130, 310
Seed Cake	UN2217	4.2	.....	12, 19	Solvent extractions	130, 310
Silicomanganese with silicon content of 25% or more.	.....	PDM	.....	2, 3, 12	With known hazard profile or known to evolve gases.	155, 405(b), 407, 415(a) & (d), 420(b), 445
Sodium Nitrate	UN1498	5.1	.....	4	.....	140
Sodium Nitrate and Potassium Nitrate Mixture.	UN1499	5.1	.....	4	Mixtures prepared as fertilizer.	140
Steel Swarf .....	.....	.....	See Ferrous Metal Borings, Shavings, Turnings, or Cuttings.	.....	.	.....
Sulfur	UN1350	4.1	.....	14, 20	Lumps or coarse-grained powder.	125, 315, 405(a), 407, 435

TABLE 148.10—BULK SOLID HAZARDOUS MATERIALS TABLE—Continued

Bulk solid material descriptions and bulk cargo shipping names	I.D. No.	Hazard class or division	References	Hazardous or potentially dangerous characteristics (see § 148.11)	Other characteristics	Special requirements (§ 148.2 * *)
Sulfur	NA1350	9	.....	14, 20	Not subject to the requirements of this subchapter when formed into specific shapes (i.e., prills, granules, pellets, pastiles, or flakes).	125, 315, 405(a), 407, 435
Tankage .....	.....	PDM	.....	11	.....	155, 320
Tankage Fertilizer .....	.....	.....	See Tankage.	.....	.....	.....
Vanadium Ore .....	.....	PDM	.....	21	.....	155
Wood chips, Wood Pellets, Wood Pulp Pellets.	.....	PDM	.....	12	.....	155, 325
Zinc Ashes	UN1435	4.3	.....	2, 3, 23	Includes zinc dross, residues, and skimmings.	135, 330, 405(b), 407, 420(b), 435, 445

§ 148.11 Hazardous or potentially dangerous characteristics.

(a) General. When Column 5 refers to a code for a hazardous material or

PDM, the meaning of that code is set forth in this section.

(b) Table of Hazardous or Potentially Dangerous Characteristics.

Code	Hazardous or potentially dangerous characteristic
1	Contact with water may cause heating.
2	Contact with water may cause evolution of flammable gases, which may form explosive mixtures with air.
3	Contact with water may cause evolution of toxic gases.
4	If involved in a fire, will greatly intensify the burning of combustible materials.
5	A major fire aboard a vessel carrying this material may involve a risk of explosion in the event of contamination (e.g., by a fuel oil) or strong confinement. If heated strongly will decompose, giving off toxic gases that support combustion.
6	These mixtures may be subject to self-sustaining decomposition if heated. Decomposition, once initiated, may spread throughout the remainder, producing gases that are toxic.
7	Toxic if swallowed and by dust inhalation.
8	Harmful and irritating by dust inhalation.
9	Highly corrosive to steel.
10	Powerful allergen. Toxic by ingestion. Skin contact or inhalation of dust may cause severe irritation of skin, eyes, and mucous membranes in some people.
11	May be susceptible to spontaneous heating and ignition.
12	Liable to cause oxygen depletion in the cargo space.
13	Liable to emit methane gas which can form explosive mixtures with air.
14	Dust forms explosive mixtures with air.
15	May present substantial danger to the public health or welfare or the environment when released into the environment. Skin contact and dust inhalation should be avoided.
16	Combustible. Burns with dense black smoke. Dust may cause skin and eye irritation.
17	Radiation hazard from dust inhalation and contact with mucous membranes.
18	Susceptible to fire from sparks and open flames.
19	May self-heat slowly and, if wet or containing an excessive proportion of unoxidized oil, ignite spontaneously.
20	Fire may produce irritating or poisonous gases.
21	Dust may contain toxic constituents.
22	Lead nitrate and lead sulfide are hazardous substances; see code 15 of this table and § 148.270.
23	Hazardous substance when consisting of pieces having a diameter less than 100 micrometers (0.004 in.); see code 15 of this table and § 148.270.
24	Cargo subject to liquefaction.
25	Subject to liquefaction if average particle size of cargo is less than 10 mm (.394 in.).
26	This entry is considered a Marine Pollutant in accordance with 49 CFR 172.101 Appendix B.
27	This entry is considered a certain dangerous cargo in accordance with 33 CFR 160.204.